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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,945	09/12/2000	Franciscus L.A.J. Kamperman	PHN 17,285	2098

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Briarcliff Manor, NY 10510

EXAMINER

KIM, JUNG W

ART UNIT PAPER NUMBER

2132

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/623,945

Applicant(s)

KAMPERMAN ET AL.

Examiner

Jung Kim

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 10-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 and 10-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

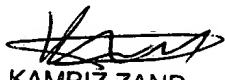
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


KAMBI ZAND
PRIMARY EXAMINER

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. This Office action is in response to the amendment filed on 7/6/06.
2. Claims 1-4 and 10-29 are pending.

Response to Amendment

3. The 112/1st paragraph rejection to claims 1, 2, 10, 11, 14, 15, 18, 20, 21, 22 and 25-29 are withdrawn as the amendment overcomes the 112/1st paragraph rejection.
4. It is noted that the amendment to the claims does not show the deleted matter of claim 1 as required by 37 CFR 1.121(c). The amendment amends claim 1 by deleting the limitation "into a lossless coded signal" but does not show the deleted limitation by striking through the deleted limitation.

Response to Arguments

5. On pg. 9, applicant argues against the 112/1st paragraph rejection, specifically, applicant argues that the rejection is not valid since "[i]t is respectfully submitted that the only steps required are those that differentiate the claimed invention from the prior art." It is unclear what this rationale is based on. The MPEP lists two requirements regarding claims: 1) the claims must set forth the subject matter that applicants regard as their invention; and (2) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant. See MPEP 2171. These requirements are clearly more substantive than applicant's baseline

suggestive requirement that required steps need only "differentiate the claimed invention from the prior art." In spite of applicant's opinion, the amended claims overcome the 112/2nd paragraph rejections.

6. Applicant's arguments with respect to the 101 rejections to claims 10-13 have been considered but are not persuasive. Applicant alleges that the amendments to the claims renders these claims statutory (Remarks, pg. 7) In particular, applicant points to the holdings of two cases "In re Taner" and "AT&T Corp. v. Excel Communications, Inc." to suggest the invalidity of the 101 rejections. However, the facts of these cases and the claims in question do not align. Both cases are discussing process or method claims, whereas claims 10-13 are claiming signals and data carriers. Hence, these arguments are not persuasive.

7. The basis for the 101 rejection is repeated here as follows: the "coded data" of claims 1 and 3 are merely compressed data embedded within it supplemental data. No functional interrelationship is established. In fact, compressed data having embedded supplemental data is a mere arrangement and is characteristic of non-functional descriptive material such as music. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. See the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex IV "Computer-related nonstatutory Subject Matter", 3rd paragraph. Furthermore, even assuming *arguendo*

that the coded data is functional descriptive material, a signal does not fall within one of the four statutory classes of section 101: it is not a process because it does not have a series of steps; it has no physical structure, does not itself perform any useful, concrete and tangible result and, thus does not fit within the definition of a machine; a signal is a form of energy so it does not fall within the definition of manufacture as defined by the Supreme Court: the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery. See the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex IV "Computer-related nonstatutory Subject Matter", (c) Electro-magnetic signals. As of the date of this action, the Interim Guidelines can be found at:

<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>.

8. In reply to applicant's argument that Barbir does not disclose the limitations of claim 1, (Remarks, pg. 10) examiner respectfully disagrees. As outlined below, Barbir discloses inducing randomness into data by introducing random update intervals to update the cumulative frequency tables and normalization factor used in encoding the data, (col. 8:3-22) which anticipates the limitation embedding supplemental data by inserting the supplemental data into the data using at least one parameter which is altered in order to embed the supplemental data; and wherein the updated interval is dependent on a stream cipher (fig. 5 and related text), which anticipates the limitation

deriving the at least one parameter from other data available during encoding. Hence, the claims remain rejected under Barbir.

9. In reply to applicant's argument that Bloom does not disclose the limitations of claim 1, (Remarks, pg. 11) examiner respectfully disagrees. Applicant's argument that the compression techniques disclosed by Bloom are not determined by specific data characteristics is not accurate; compressed data using the techniques disclosed by Bloom are directly affected by the data characteristics; as such these data characteristics control the output of the compression algorithm. Hence, as outlined below, Bloom discloses compressing data using common video compression techniques including MPEG, MPEG2, H.261, and H.263 and still image compression techniques including JPEG, which anticipates the limitation partitioning the data into frames; determining a set of parameters for each frame; reducing the data rate of the input signal by applying an algorithm which is controlled by the parameter set whereby encoded data includes the set of parameters or at least data which can be used to derive the parameter set and the data rate-reduced signal; and inserting a watermark into compressed data by modifying a set of data characteristics in the spatial domain, the temporal domain, and/or transform domain, which anticipates the limitation embedding supplemental data into encoded data, the parameter set is affected by the supplemental data. Therefore, the claims remain rejected under Bloom.

Claim Rejections - 35 USC § 101

10. Claims 10 and 12 are rejected under 35 U.S.C. 101 because claims 10 and 12 are drawn to signals per se, not embodied on a computer-readable medium. See MPEP 2106 IV B. 1(a) and (c). In addition, claims 10-13 are drawn to encoded data which is nonfunctional descriptive material, not a process, machine, manufacture, nor composition of matter. See MPEP 2106 IV B. 1(b).

Claim Rejections - 35 USC § 102

11. Claims 1, 2, 10, 11, 14, 15 and 25-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Barbir USPN 6,122,379. (hereinafter Barbir)

12. As per claim 1, Barbir discloses a method of encoding data, comprising embedding supplemental data by inserting the supplemental data into the data using at least one parameter which is altered in order to embed the supplemental data; and deriving the at least one parameter from other data available during encoding. (col. 7:22-8:53; 9:5-35; the "induced randomness" is the supplemental data (8:5-6); the interval between updates to the coding probabilities is the at least one parameter (8:11-22); the interval is derived from the RNG.

13. As per claim 2, Barbir discloses a method of extracting supplemental data of encoded data as defined in claim 1. (col. 8:7-8; 9:37-67)

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14. As per claims 10 and 11, Barbir discloses a data carrier comprising a recorded signal comprising the encoded data of claim 1. (fig. 3, reference no. 170)

15. As per claims 14 and 15, Barbir discloses an arrangement for performing the method of claims 1 and 2. (fig. 3 and 4)

16. As per claim 25, Barbir discloses lossless encoding is used to encode the supplemental data. (no data is lost in the randomizing steps)

17. As per claim 26, Barbir discloses the supplemental data is encoded bit by bit. (fig. 6, reference nos. 300 and 305)

18. As per claim 27, Barbir discloses before the embedding, partitioning of the data into frames and determining a set of parameters for each frame, wherein the set of frames can be altered to embed the supplemental data. (col. 8:63-65; fig. 8)

19. As per claim 28, Barbir discloses the encoded data is used to derive the set of parameters. (col. 8:63-65)

20. As per claim 29, Barbir discloses the parameters is altered to a dedicated value in response to the supplemental data to be encoded. (fig. 6; reference nos. 335, 340, 345, 350, 355 and 360)

21. Claims 1-4, 10-24 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Bloom USPN 6,332,194. (hereinafter Bloom)

22. As per claim 1, Bloom discloses a method of encoding data, comprising embedding supplemental data by inserting the supplemental data into the data using at least one parameter which is altered in order to embed the supplemental data; and deriving the at least one parameter from other data available during encoding. (col. 5:53-6:61; the set of data characteristics correspond to the parameter)

23. As per claim 2, Bloom discloses a method of extracting supplemental data of encoded data as defined in claim 1. (col. 4:15-24)

24. As per claim 3, Bloom discloses a method of encoding input data, comprising the steps of:

- a. partitioning the data into frames; determining a set of parameters for each frame; reducing the data rate of the input signal by applying an algorithm which is controlled by the parameter set whereby encoded data includes the set of parameters or at least data which can be used to derive the parameter set and the data rate-reduced signal (col. 6:12-29); and

b. embedding supplemental data into encoded data, the parameter set is affected by the supplemental data. (6:31-61; fig. 3, reference nos 306, 308, and 310 and related text)

25. As per claim 4, Bloom further discloses a method of extracting information which is embedded in the parameter set of an encoded signal as defined in claim 3. (col. 4:22-24)

26. As per claims 10 and 11, Bloom discloses a data carrier comprising a recorded signal comprising the encoded data of claim 1. (col. 4:6-28)

27. As per claims 12 and 13, Bloom discloses a data carrier comprising a recorded signal comprising the encoded data of claim 3. (col. 4:6-28)

28. As per claims 14 and 15, Bloom discloses an arrangement for performing the method of claims 1 and 2. (col. 4:6-28)

29. As per claims 16 and 17, Bloom discloses an arrangement for performing the methods of claims 3 and 4. (col. 4:6-28)

30. As per claims 18 and 20-22, Bloom discloses the arrangement for performing the method of claims 3 and 4 is a disc player for audio and audio-visual media. (4:6-28)

31. As per claims 19, 23 and 24, Bloom discloses the arrangement for performing the method of claims 3 and 4 is a disc player for audio and audio-visual media. (4:6-28)

32. As per claim 27, Bloom discloses before the embedding, partitioning of the data into frames and determining a set of parameters for each frame, wherein the set of frames can be altered to embed the supplemental data. (col. 6:31-61)

33. As per claim 28, Bloom discloses the encoded data is used to derive the set of parameters. (col. 5:53-6:12; the set of data characteristics)

34. As per claim 29, Bloom discloses the parameters is altered to a dedicated value in response to the supplemental data to be encoded. (col. 6:31-61)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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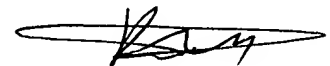
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communications Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KAMBIZ ZAND
PRIMARY EXAMINER

Jung W Kim
Examiner


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